

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: )  
 )  
Shah, et al. )  
 )  
Serial No.: 09/ , )  
 )  
Filed: January 6, 1999 )  
 )  
For: METHOD AND SYSTEM FOR )  
SWITCHING SIGNALS OVER )  
TWISTED-PAIR WIRES )

**DECLARATION CLAIMING SMALL ENTITY  
STATUS UNDER 37 CFR 1.9(f) and 1.27(c)  
SMALL BUSINESS CONCERN**

I hereby declare that I am

- ☐ the owner of the small business concern identified below:  
☒ an official of the small business concern empowered to act on behalf of the concern  
identified below:

NAME OF CONCERN PRAGMATIC COMMUNICATIONS SYSTEMS, Inc.  
ADDRESS OF CONCERN 544 E. Weddell Drive, Suite 8  
Sunnyvale, California 94089

I hereby declare that the above identified small business concern qualifies as a small business concern as defined in 13 CFR 121.3-18, and reproduced in 37 CFR 1.9(d), for purposes of paying reduced fees under section 41(a) and (b) of Title 35, United States Code, in that the number of employees of the concern, including those of its affiliates, does not exceed 500 persons. For purposes of this statement, (1) the number of employees of the business concern is the average over the previous fiscal year of the concern of the persons employed on a full-time, part-time or temporary basis during each of the pay periods of the fiscal years, and (2) concerns are affiliates of each other when either, directly or indirectly, one concern controls or has the power to control the other, or a third party or parties controls or has the power to control both.

I hereby declare that rights under contract or law have been conveyed to and remain with the small business concern identified above with regard to the invention entitled **METHOD AND SYSTEM FOR SWITCHING SIGNALS OVER TWISTED-PAIR WIRES** by inventor(s) Prasanna M. Shah, Robert L. Taber and Herbert J. Kniess, described in the application filed January 6, 1999.

The rights held by the above identified small business concern are not exclusive, each individual, concern or organization having rights to the invention is listed below\* and no rights to the invention are held by any person, other than the inventor, who could not qualify as a small business concern under 37 CFR 1.9(d) or by any concern which would not qualify as a small business concern under 37 CFR 1.9(d) or a nonprofit organization under 37 CFR 1.9(e).

\*NOTE: Separate verified statements are required from each named person, concern or organization having rights to the invention averring to their status as small entities. (37 CFR 1.27)

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate. (37 CFR 1.28(b))

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this declaration is directed.

NAME OF PERSON SIGNING:

Prasanna M. Shah

TITLE OF PERSON OTHER THAN OWNER:

President and CEO

ADDRESS OF PERSON SIGNING:

544 E. Weddell Drive, Suite 8  
Sunnyvale, California 94089

SIGNATURE:

Prasanna M. Shah

DATE:

1/11/99

**DECLARATION AND POWER OF ATTORNEY FOR UTILITY PATENT APPLICATION**

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below, next to my name,

I believe that I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

**A SYSTEM AND METHOD FOR SWITCHING SIGNALS OVER TWISTED-PAIR WIRES**

the specification of which

X is attached hereto.  
 \_\_\_ was filed on \_\_\_\_\_ and  
 assigned serial number \_\_\_\_\_.

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above. I do not know and do not believe that the same was ever known or used in the United States of America before my invention thereof, or patented or described in any printed publication in any country before my invention thereof or more than one year prior to this application, that the same was not in public use or on sale in the United States of America more than one year prior to this application, and said invention has not been patented or made the subject of an inventor's certificate issued before the date of this application in any country foreign to the United States of America on an application filed by me or my legal representatives or assigns more than twelve months prior to this application.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, Section 1.56 (a).

I hereby claim foreign priority benefits under Title 35, United States Code, Section 119, of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

<u>Prior Foreign Application(s)</u>			<u>Priority Claimed</u>	
<u>(Number)</u>	<u>(Country)</u>	<u>(Day/Month/Year Filed)</u>	<u>Yes</u>	<u>No</u>
<u>(Number)</u>	<u>(Country)</u>	<u>(Day/Month/Year Filed)</u>	<u>Yes</u>	<u>No</u>

I hereby claim the benefit under Title 35, United States Code, Section 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, Section 112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, Section 1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

<u>60/072,106</u>	<u>01/06/98</u>	<u>provisional - pending</u>
(Application Serial No.)	(Filing Date)	(Status -- patented, pending, abandoned)
<u>(Application Serial No.)</u>	<u>(Filing Date)</u>	<u>(Status -- patented, pending, abandoned)</u>

I hereby appoint Joseph A. Sawyer, Jr., Reg. No. 30,801 and Janyce R. Mitchell, Reg. No. 40,095, of **SAWYER & ASSOCIATES, 2465 East Bayshore Road, Suite 406, Palo Alto, Calif 94303, telephone (650) 493-4540**, as my attorneys with full power of substitution and revocation, to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith.

Address all telephone calls to Mr. Joseph A. Sawyer, Jr. at telephone number **(650) 493-4540** and all correspondence to:

**Joseph A. Sawyer, Jr.  
SAWYER & ASSOCIATES  
P.O. Box 51418  
Palo Alto, California 94303**

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such wilful false statements may jeopardize the validity of the application or any patent issued thereon.

Full Name of first/joint Inventor: **Prasanna M. Shah**

Residence Address: **969 Planetree Place**  
**Sunnyvale Santa Clara California 94086**  
**City County State Zip Code**

Post Office Address: **SAME**

Country of Citizenship: **United States of America**

1/11/99  
Date

Prasanna M. Shah  
Signature

Full Name of second/joint Inventor: **Robert L. Taber**

Residence Address: **1751 Warburton Avenue, Apt. No. 1**  
**Santa Clara Santa Clara California 95050**  
**City County State Zip Code**

Post Office Address: **SAME**

Country of Citizenship: **United States of America**

1-20-99  
Date

Robert L. Taber  
Signature

**COMBINED DECLARATION/POWER OF ATTORNEY (Continued)**

---

Full Name of third/joint Inventor: **Herbert J. Knies**

Residence Address: **635 Giant Way**  
**San Jose** **Santa Clara** **California** **95127**  
**City** **County** **State** **Zip Code**

Post Office Address: **SAME**

Country of Citizenship: **United States of America**

1/20/99  
Date

  
Signature

Please type a plus sign (+) inside this box → ☐

PTO/SB/82 (11-96)

Approved for use through 6/30/99. OMB 0651-0035

Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

## REVOCATION OF POWER OF ATTORNEY OR AUTHORIZATION OF AGENT

Application Number	09/226,869
Filing Date	January 6, 1999
First Named Inventor	Prasanna M. Shah
Group Art Unit	2189
Examiner Name	Paul R. Myers
Attorney Docket Number	1201P

I hereby revoke all previous powers of attorney or authorizations of agent given in the above-identified application:

☐ A Power of Attorney or Authorization of Agent is submitted herewith.

OR

☒ Please change the correspondence address for the above-identified application to:

☐ Customer Number

OR

Place Customer  
Number Bar Code  
Label here

<input checked="" type="checkbox"/> Firm or Individual Name	Donald E. Schreiber, Esq. Donald E. Schreiber A Professional Corporation				
Address	P.O. Box 2926				
Address					
City	Kings Beach				
Country	USA	State	California	ZIP	96143-2926
Telephone	(530) 546-6041	Fax	(530) 546-2341		

I am the:

☐ Applicant.

☒ Assignee of record of the entire interest  
*Certificate under 37 CFR 3.73(b) is enclosed*

### SIGNATURE of Applicant or Assignee of Record

Name	Prasanna M. Shaw, President Pragmatic Communication Systems, Inc.
Signature	<i>Prasanna M. Shaw</i>
Date	4/24/2003

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Please type a plus sign (+) inside this box ➡ +

PTO/SB/81 (11-86)

Approved for use through 6/30/99. OMB 0651-0035

Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

**POWER OF ATTORNEY OR  
AUTHORIZATION OF AGENT,  
NOT ACCOMPANYING  
APPLICATION**

Application Number	09/226,869
Filing Date	January 6, 1999
First Named Inventor	Prasanna M. Shah
Group Art Unit	2189
Examiner Name	Paul R. Myers
Attorney Docket Number	1201P

I hereby appoint:

☐ Practitioners at Customer Number  →

*Place Customer  
Number Bar Code  
Label here*

OR

☒ Practitioner(s) named below:

Name	Registration Number
Donald E. Schreiber	29,435

as my/our attorney(s) or agent(s) to prosecute the application identified above, and to transact all business in the Patent and Trademark Office connected therewith.

Please change the correspondence address for the above-identified application to:

☐ The above-mentioned Customer Number.

OR

<input checked="" type="checkbox"/> Firm or Individual Name	Donald E. Schreiber, Esq. Donald E. Schreiber A Professional Corporation		
Address	P.O. Box 2926		
Address			
City	Kings Beach	State	California
Country	USA		
Telephone	(530) 546-6041	Fax	(530) 546-2341
ZIP	96143-2926		

I am the:

☐ Applicant.

☒ Assignee of record of the entire interest  
*Certificate under 37 CFR 3.73(b) is enclosed*

**SIGNATURE of Applicant or Assignee of Record**

Name	Prasanna M. Shaw, President Pragmatic Communication Systems, Inc.
Signature	<i>Prasanna M. Shaw</i>
Date	4/24/2003

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

# CHANGE OF CORRESPONDENCE ADDRESS Application

Address to:  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450.

Application Number	(Unknown)
Filing Date	Herewith
First Named Inventor	Prasanna M. Shah
Art Unit	Unknown
Examiner Name	Unknown
Attorney Docket Number	2218CON1

Please change the Correspondence Address for the above-identified patent to:

☐ Customer Number

Type Customer Number here

Place Customer  
Number Bar Code  
Label here

OR

<input checked="" type="checkbox"/> Firm or Individual Name	Donald E. Schreiber, Esq.		
Address	Donald E. Schreiber A Professional Corporation		
Address	Post Office Box 2926		
City	Kings Beach	State	CA Zip 96143-2926
Country	United States of America		
Telephone	(530) 546-6041	Fax	(530) 546-2341

This form cannot be used to change the data associated with a Customer Number. To change the data associated with an existing Customer Number use "Request for Customer Number Data Change" (PTO/SB/124).

I am the:

- ☐ Applicant/Inventor
- ☐ Assignee of record of the entire interest.  
Statement under 37 CFR 3.7(b) is enclosed. (Form PTO/SB/96).
- ☒ Attorney or Agent of record.
- ☐ Registered practitioner named in the application transmittal letter in an application without an executed oath or declaration. See 37 CFR 1.33(a)(1). Registration Number \_\_\_\_\_

Typed or Printed Name **Donald E. Schreiber**Signature *Donald E. Schreiber*Date *18 August 2003*

Telephone (530) 546-6041

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below.

☒ Total of 1 forms are submitted.

This collection of information is required by 37 CFR 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

**CERTIFICATE UNDER 37 CFR 3.73(b)**Applicant: Prasanna M. ShahApplication No.: 09/226,869Filed: January 6, 1999Entitled: SYSTEM AND METHOD FOR SWITCHING SIGNALS OVER TWISTED-PAIR WIRESPragmatic Communication Systems, Inc., a \_\_\_\_\_ corporation

(Name of Assignee)

(Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

certifies that it is:

1. ☒ the assignee of the entire right, title, and interest; or
2. ☐ an assignee of an undivided part interest

in the patent application identified above by virtue of either:

- A. ☒ An assignment from the inventor(s) of the patent application identified above. The assignment was recorded in the Patent and Trademark Office at Reel 9846, Frame 0149, or for which a copy thereof is attached.

OR

- B. ☐ A chain of title from the inventor(s), of the patent application identified above, to the current assignee as shown below:

1. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.
2. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.
3. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

☐ Additional documents in the chain of title are listed on a supplemental sheet.

☐ Copies of assignments or other documents in the chain of title are attached.

The undersigned (whose title is supplied below) is empowered to sign this certificate on behalf of the assignee.

4/24/2003

Date

Prasanna M. Shah

Signature

Prasanna M. Shah

Typed or printed name

President Pragmatic Communication Systems, Inc.

Title



UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office  
ASSISTANT SECRETARY AND COMMISSIONER  
OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

*Pragmatic  
1201P*

JUNE 10, 1999

PTAS

SAWYER & ASSOICATES  
JOSEPH A. SAWYER, JR.  
P.O. BOX 51418  
PALO ALTO, CA 94303



\*100996341A\*

UNITED STATES PATENT AND TRADEMARK OFFICE  
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

JUN 21 1999

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 03/02/1999

REEL/FRAME: 9846/0149  
NUMBER OF PAGES: 3

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

SHAH, PRASANNA M.

DOC DATE: 01/11/1999

ASSIGNOR:

TABER, ROBERT L.

DOC DATE: 01/20/1999

ASSIGNOR:

KNISS, HERBERT J.

DOC DATE: 01/20/1999

ASSIGNEE:

PRAGMATIC COMMUNICATIONS SYSTEMS,  
INC.  
544 E. WEDDELL DRIVE  
SUITE 8  
SUNNYVALE, CALIFORNIA 94089

SERIAL NUMBER: 09226869  
PATENT NUMBER:

FILING DATE: 01/06/1999  
ISSUE DATE:

9846/0149 PAGE 2

SHAREILL COLES, EXAMINER  
ASSIGNMENT DIVISION  
OFFICE OF PUBLIC RECORDS

## **ASSIGNMENT**

For good and valuable consideration, the receipt of which is hereby acknowledged, I/we, the undersigned, Prasanna M. Shah of Sunnyvale, in the County of Santa Clara and State of California; Robert L. Taber of Santa Clara, in the County of Santa Clara and State of California; and Herbert J. Kniess of San Jose, in the County of Santa Clara and State of California, do hereby sell, assign, and transfer to: **Pragmatic Communications Systems, Inc.**, having a principal place of business at 544 E. Weddell Drive, Suite 8, Sunnyvale, California 94089 (hereinafter termed "Assignee"), its successors, assigns, and legal representatives, the entire right, title and interest for the United States and all foreign countries, in and to any and all improvements which are disclosed in the application for United States Letters Patent,

[ ] which has been executed by the undersigned concurrently herewith,

[ X ] Serial No. 09/226,869, filed January 6, 1999,

and is entitled:

### **A SYSTEM AND METHOD FOR SWITCHING SIGNALS OVER TWISTED-PAIR WIRES**

and in and to said application and all divisional, continuing, substitute, renewal, reissue, and all other applications for Letters Patent which have been or shall be filed in the United States and all foreign countries on any of said improvements; and in and to all original and reissued patents which have been or shall be issued in the United States and all foreign countries on said improvements; and in and to all rights of priority resulting from the filing of said United States application; and

Agree that said Assignee may apply for and receive Letters Patent for said improvements in its own name; and that, when requested, without charge to, but at the expense of, said Assignee, its successors, assigns and legal representatives, to carry out in good faith the intent and purpose of this Assignment, the undersigned will execute all divisional, continuing, substitute, renewal, reissue, and all other patent applications on any and all said improvements; execute all rightful oaths, assignments, powers of attorney and other papers; communicate to said Assignee, its successors, assigns, and representatives, all facts known to the undersigned relating to said improvements and the history thereof; and generally do everything possible which said Assignee, its successors, assigns or representatives shall consider desirable for aiding in securing and maintaining proper patent protection for said improvements and for vesting title to said improvements and all applications for patents and all patents on said improvements, in said Assignee, its successors, assigns and legal representatives; and

ASSIGNMENT (continued)

Covenant with said Assignee, its successors, assigns and legal representatives that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein conveyed has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned.

Signed:

Name: Prasanna M. Shah  
Prasanna M. Shah

Date: 1/11/99

Name: Robert L. Taber  
Robert L. Taber

Date: 1-20-99

Name: Herbert J. Kniess  
Herbert J. Kniess

Date: 1/20/99